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KB 12/22/09

Application Serial No. 10/510,395 Preliminary Amendment

Docket No.: 1093-109 PCT/US

## AMENDMENTS TO THE ABSTRACT

29, 108 12/22/09

On page 18, please replace the Abstract with the following:

-- ABSTRACT

## **ABSTRACT**

A security element (2) which is difficult to copy includes a layer composite (1) which has microscopically fine, optically effective structures (9) of a surface pattern, which are embedded between two layers (5; 6) of the layer composite (1). In a plane of the surface pattern, which is defined by co-ordinate axes x and y, the optically effective structures (9) are shaped into an interface (8) between the layers (5; 6) in surface portions of a holographically non-copyable security feature. In at least one surface portion the optically effective structure (9) is a diffraction structure (S, S\*, S\*\*) formed by additive superimposition of a macroscopic superimposition function (M) with a microscopically fine relief profile (R). Both the relief profile (R), the superimposition function (M) and also the diffraction structure  $(S, S^*, S^{**})$  are functions of the co-ordinates x and y. The relief profile (R) is a lightdiffractive or light-scattering optically effective structure (9) and, following the superimposition function (M), retains the predetermined profile height. The superimposition function (M) is at least portion-wise steady and is not a periodic triangular or rectangular function. In comparison with the relief profile (R) the superimposition function (M) changes slowly. Upon tilting and rotation of the layer composite (1) the observer sees on the illuminated surface portions light, continuously moving strips which are dependent on the viewing direction.

(Figure 1)

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reference for the movement of the strip 40 or the identification mark 37 is produced by means of the structured reflection layer.

In a further embodiment of the security feature 16 as shown in Figures 6 the adjacent surface portions 13 and 15 which adjoin the central surface portion 14 on both sides serve as a mutual reference. The adjacent surface portions 13 and 15 both have a diffraction structure  $S^*(x, y)$ . In contrast to the diffraction structure  $S^*(x, y)$  S(x, y) the diffraction structure  $S^*(x, y)$  is the difference R-M of the relief function R(x, y) and the superimposition function M(x, y), that is to say  $S^*(x, y) = R(x, y) - M(x, y)$ . The color bands produced by the diffraction structure  $S^*(x, y)$  are of a reversed color configuration with respect to the color bands of the diffraction structure S(x, y), as is indicated in the drawing of Figure 6a by means of a bold longitudinal edging for the strip 40. For good visibility of the optical effect without aids, the security feature 16 is of a dimension of at least 5 mm and preferably more than 10 mm along the co-ordinate axis y or the line 36. The dimensions along the co-ordinate axis x are more than 0.25 mm, but preferably at least 1 mm.

Please further amend the paragraphs extending between page 19, line 32 and page 17, line 20, as

follows:

In Figure 12a the security element 16 is in the x-y-plane defined by the coordinate axes axis x and y, wherein the viewing direction 39 (Figure 5) forms a